

NOTES ON TASMANIAN CAPRELLIDAE.

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The small collection of Caprellids referred to in the following notes was obtained on the eastern coast of Tasmania in April, 1914.

The species dealt with are as follows:—

Dodecas decacentrum, Stebbing.

Orthoprotella australis (Haswell).

Caprella aequilibra, Say.

The collection is of interest since it contains a representative of the small genus *Dodecas*, *D. decacentrum*, Stebbing and Haswell's *Orthoprotella australis*, both of which are here recorded for the first time from Tasmania. *Caprella aequilibra*, Say, is cosmopolitan in its distribution and has previously been recorded from these waters.

Altogether twenty-eight species (four of which are undetermined) belonging to the family Caprellidae are now known to occur in Australian and Tasmanian waters. These are:—*Paraprotospinosa* (Haswell); *P. condylata* (Haswell); *P. gabrieli*, Stebbing; *Metaprotos novae-hollandiae* (Haswell); *Liriarchus perplexus*, Mayer; *Pseudoprotos falar.* Mayer; *Dodecas hexacentrum*, Mayer; *D. decacentrum*, Stebbing; *Hircella cornigera* (Haswell); *Protella similis*, Mayer; *Protella* sp.; *Orthoprotella australis* (Haswell); *Metaprotella excentrica*, Mayer; *M. haswelliana*, Mayer; *M. sandalensis*, Mayer?; *Aciconula miranda*, Mayer; *Paradeutella echinata* (Haswell); *Paradeutella* sp.; *Monoliropus agilis*, Mayer; *Hemiaegina minuta*, Mayer; *Paracaprella alata*, Mayer; *Paracaprella* sp.; *Caprella tenuis*, Haswell; *C. penantis*, Leach; *C. aequilibra*, Say; *C. danilenskii*, Czerniavski; *C. saura*, Templeton; *Caprella* sp.

The four undetermined species mentioned in the preceding list are dealt with by Mayer* in "Die Fauna Südwest-Australiens." In the same paper he describes a new genus and species, *Liriarchus perplexus*, from Champion Bay,

* Mayer.—Die Fauna Südwest-Australiens, Caprellidae, iv., 1, 1912, pp. 3-5 and 12.

Geraldton, and Cockburn Sound, Fremantle, Western Australia; and records for the first time from Australian seas *Pseudoprotella falax*, *Protella similis*, *Metaprotella sandaleusis*?, *Aciconula miranda*, *Monoliropus agilis* and *Hemiaegina minuta*.

Family CAPRELLIDAE.

Genus DODECAS, *Stebbing*.

Dodecas, Stebbing, Ann. Mag. Nat. Hist., (5), xi, 1883, p. 207.

Dodecas, Stebbing, Report Sci. Results "Challenger" Exped., Zool., xxix., 1888, pp. 547, 1232.

Dodecas, Mayer, Fauna und Flora des Golfes von Neapel, xvii., Caprelliden, 1890, p. 15.

Dodecas, Mayer, Die Caprellidae der Siboga Expedition, xxxiv., 1903, p. 29.

Dodecas, Stebbing, Mem. Austr. Mus., iv., 12, 1910, p. 629.

The original definition based on specimens from Kerguelen Island holds with slight modification for the three species now included in the genus.

Stebbing's diagnosis is as follows:—"The mandibles having an elongate triarticulate palp. Six pairs of feet attached to the pereion, the fourth segment having none. Branchial vesicles at the base of the second gnathopods, the first pereopods, and attached to the footless fourth perion-segment, the rudimentary pleon having two pairs of biarticulate appendages."

In 1903 Mayer added the new species *Dodecas hexacentrum* from Watson Bay, Port Jackson, New South Wales. He remarks that "Die Genusdiagnose bleibt unverändert" and gives as the generic characters "Mandibular-palpus 3 gliedrig, Geissel der Hinterfühler höchstens 5 gliedrig, Bein 3 normal gegliedert, Bein 4 fehlt, Bein 5 mit 4 freien Gliedern, Kiemen an Segment 2-4, Abdomen beim ♂ mit 3, beim ♀ mit 2 Paar Anhängen."

The Caprellidae obtained by the "Thetis" Trawling Expedition on the coast of New South Wales included a third species, *Dodecas decacentrum*, Stebbing, which necessitates a slight change in the generic description since the species attains a greater number than five in the joints of the second antennae.

The genus may be defined as follows:—Mandibular palp three-jointed, flagellum of second antennae with five or more joints, first pereopod with normal number of joints, second wanting, third with four free joints, branchial vesicles on the

peraeon segments 2-4, pleon in the male with three, in the female with two pairs of appendages.

Stebbing gives the following key, which serves to distinguish the three species:—

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| 1. | { | Body smooth 1. <i>Dodecas elongata</i> , Stebbing. |
| | { | Body with spine-like processes—2. |
| 2. | { | Body of male six-spined; flagellum of first antennae seven-jointed. |
| | { | 2. <i>Dodecas hexacentrum</i> , Mayer. |
| | { | Body of male ten-spined; flagellum of first antennae more than seven-jointed. |
| | { | 3. <i>Dodecas decacentrum</i> , Stebbing. |

DODECAS DECACENTRUM, Stebbing.

Dodecas decacentrum, Stebbing, Mem. Austr. Mus., iv., 12, 1910, p. 629, pl. lx.

This species is characterised by the presence of ten spines in a continuous line of pairs on the dorsal surface, and by the extreme length of the first antennae. The male has a dorsal pair of spines at the end of the first segment, one pair in the middle and one pair at the end of the second, and two other pairs, arming the third and fourth segments respectively at the middle. The first antennae are very long, and in the male the last joint of the peduncle is longer than the penultimate. The flagellum contains seventeen to eighteen joints, which are slender and elongate, the first always the longest. The second antennae are slender with the last joint of the peduncle longer than the penultimate. The slender flagellum is composed of seven or eight joints. The mouth-organs are very like those of *Dodecas elongata*, Stebbing. The eyes are rounded and very prominent. The first gnathopod is of the ordinary type; in the second, especially in the male, the fifth joint is long and slender, distinct from the sixth, but without separate mobility. The palm of the sixth joint has two emarginations, of which the distal one is the longer, being veiled by a transparent membrane. The pleon carries at the base a ventral median plate with a minute pair of oval pleopods, each ending in a seta.

Five male specimens were obtained. Length of the specimens 19-21 mm. from front of head to the end of pleon; of first antennae 15-17.5 mm.; of second gnathopod 10.5-12 mm.

Locality.—D'Entrecasteaux Channel, Tasmania, 2-11 fathoms. On a Hydroid (*Sertularia operculata*, Linnaeus).

Distribution.—Hitherto recorded only from New South Wales—off Port Hacking, 22-38 fathoms; off Botany Bay, 50-52 fathoms; off Wata Mooli, 59-54 fathoms (Stebbing).

Genus ORTHOPROTELLA, Mayer.

Orthoprotella, Mayer Die Caprellidae der Siboga Expedition, xxxiv., 1903, p. 35.

Orthoprotella, Stebbing, Mem. Austr. Mus., iv., 12, 1910, p. 631.

In 1903 Mayer distinguished the genus *Orthoprotella* from *Protella* chiefly by the character that the pleon of the male carries one pair of two-jointed rudimentary pleopods. He remarks that "Die Verschmelzung von Segment 6 und 7 ist hier ebenso weit gediehen wie bei *Protella*." The genus was established for Haswell's *Protella australis*.

ORTHOPROTELLA AUSTRALIS (*Haswell*).

Protella australis, Haswell, Proc. Linn. Soc. N.S. Wales, iv., 1880, p. 276, pl. xii., fig. 4, a, b.

Protella australis, Haswell, Cat. Austr. Stalk-and Sessile-Eyed Crustacea, 1882, p. 311.

Protella australis, Haswell, Proc. Linn. Soc. N. S. Wales, ix., 1885, p. 997, pl. xlix., figs. 2-4.

Orthoprotella australis, Mayer, Die Caprellidae der Siboga Expedition, xxxiv., 1903, p. 35, pl. i., figs. 23-26, pl. vi., figs. 43-49, pl. ix., figs. 14, 37, 57, 58.

Orthoprotella australis, Stebbing, Mem. Austr. Mus., iv., 12, 1910, p. 632.

This species is characterised by the presence of a pair of short, acute, forwardly-directed spine-like processes on the head, and by the extreme length of the first antennae, which very nearly equal the body in length. The flagellum is comparatively short and contains eighteen joints, the first two of which are only partially separated. According to Haswell the flagellum of the first antennae in the specimens from Port Jackson is composed of seventeen joints. The flagellum in Mayer's specimens has as many as twenty-three joints in the male and twenty in the female. The last joint of the peduncle is provided at its distal end with a well-developed tooth-like process. The second antennae are relatively short, the last joint of the peduncle being slightly longer than the penultimate. The flagellum of six joints is very short, not being half the length of the last joint of the peduncle. The propodos of the first gnathopod has the palm undefined; in the second gnathopod the propodos is

ovate and the palm is defined by an acute conical tooth as well as by two other teeth near its distal end, one proximal, acute, the other compressed.

A single male specimen was taken. Length of the specimen 16.5 mm. from front of head to end of pleon; of first antennae 15 mm.; of second gnathopod, 6.5 mm.

Locality.—D'Entrecasteaux Channel, Tasmania, 2-11 fathoms. On a Hydroid (*Sertularia operculata*, Linnaeus).

Distribution.—Previously recorded from Port Jackson; Nelson Bay, Port Stephens; Broken Bay, New South Wales, 4-5 fathoms; New Harbour, Singapore, 5-6 fathoms; Station 166, lat. 2° 28'5 S., long. 131° 3'3 E., 118 M.; Station 172, between Gisser Island and Ceram-Laut, 18 M.; Station 273, Anchorage off Pulu Jedan, east coast of Aru Islands, 13 M.; Station 299, lat. 10° 52'4 S., long. 123° 1'1 E., Boeka or Cyrus Bay, south coast of Rotti Island, 34 M.; Banda Reef, lat. 4° S., long. 130° E., Banda Sea (Mayer).

Genus CAPRELLA, Lamarck.

Caprella, Lamarck, *Système des Animaux sans Vertèbres*, 1801, p. 165.

Caprella, Stebbing, *Report Sci. Results "Challenger" Exped.*, Zool., xxix., 1888, p. 1251.

Caprella, Mayer, *Fauna und Flora des Golfes von Neapel*, xvii., *Caprelliden*, 1890, p. 42.

Caprella, Mayer, *Die Caprellidae der Siboga Expedition*, xxxiv., 1903, p. 72.

CAPRELLA AEQUILIBRA, Say.

Caprella equilibra, Say, *Journ. Acad. Nat. Sci. Philad.*, i., 1818, p. 391.

Caprella obesa, Haswell, *Proc. Linn. Soc. N.S. Wales*, iv., 1879, p. 348, pl. xxiv., fig. 1, f, k.

Caprella obesa, Haswell, *Cat. Austr. Stalk-and Sessile-Eyed Crustacea*, 1882, p. 314.

Caprella aequilibra, Mayer, *Fauna und Flora des Golfes von Neapel*, vi., *Caprelliden*, 1882, p. 45, pl. i., fig. 7, pl. ii., figs. 1-11, pl. iv., figs. 20-25, pl. v., figs. 16-18.

Caprella aequilibra, Haswell, *Proc. Linn. Soc. N.S. Wales*, ix., 1885, p. 999.

Caprella aequilibra, Mayer, *Fauna und Flora des Golfes von Neapel*, xvii., *Caprelliden*, 1890, p. 48, pl. ii., figs. 42, 43, pl. iv., figs. 35-37, pl. vi., figs. 18a, 37.

Caprella aequilibra, Mayer, *Die Caprellidae der Siboga Expedition*, xxxiv., 1903, p. 89, pl. iii., figs. 29-34, pl. vii., figs. 66-69.

A single specimen was obtained. Length of the specimen 10 mm. from front of head to end of pleon; of first antennae 7.5 mm.; of second gnathopod 4.5 mm.

Locality.—Off Thouin or Wineglass Bay, Freycinet Peninsula, Tasmania, 80 fathoms. On a Hydroid (*Aglaophenia decumbens*, Bale).

Distribution.—Previously recorded from Australia—Port Jackson, New South Wales; Griffith Point, Victoria; Shark Bay and Swan River, Western Australia; and Tasmania. For the complete distribution of this cosmopolitan species see Mayer, *Die Caprellidae der Siboga Expedition*, xxxiv., 1903, pp. 135-145; and *Die Fauna Südwest-Australiens, Caprellidae*, iv., 1, 1912, pp. 4, 5.